

## OCEAN GALES AND STORMS, FEBRUARY, 1925

Vessel	Voyage		Position at time of lowest barometer		Gale began	Time of lowest barometer	Gale ended	Lowest barometer (Ins.)	Direction of wind when gale began	Direction and force of wind at time of lowest barometer	Direction of wind when gale ended	Highest force of wind and direction	Shifts of wind near time of lowest barometer
	From—	To—	Latitude	Longitude									
North Atlantic Ocean:													
Novian, Br. S. S.	London	Boston	48 03 N.	31 53 W.	Jan. 31	2 a., 1st	1st	29.93	SW	SE., 9	W	—, 9	SW-S-SE.
Frederick VIII, Dan. S. S.	Oslo	New York	57 56 N.	18 50 W.	Feb. 1st	10 p., 2d	3d	29.45	SSW	SW., 9	SW	W., 10	SSW-W.
Bradlien, Dan. S. S.	New York	Copenhagen	56 45 N.	22 18 W.	Jan. 30	8 a., 4th	5th	29.12	SE	WSW., 11	W	W., 11	Steady W.
Bay State, Br. S. S.	Dundee	New York	42 50 N.	62 00 W.	Feb. 2	4 a., 3d	5th	29.67	SSE	S., 9	N	—, 10	S-NW.
Shickshinny, Am. S. S.	Savannah	Liverpool	39 35 N.	56 05 W.	5th	4 a., 5th	6th	29.53	S	S., 6	S	—, 8	N-NE.
Cairnvalone, Br. S. S.	Leith	Portland, Me.	58 31 N.	7 28 W.	8th	1 p., 8th	10th	28.85	WSW	W., 8	W	—, 9	—
Van Rensselaer, Du. S. S.	Dover	Barbados	44 09 N.	15 04 W.	10th	3 a., 11th	12th	29.51	SW	N., 7	W	SW., 9	SW-NW-N.
Canadian Importer, Br. S. S.	Norfolk	England	46 25 N.	21 13 W.	12th	11 p., 12th	15th	29.52	WNW	WNW., 9	N	—, 10	Steady WNW.
Maine, Dan. S. S.	do	Copenhagen	54 14 N.	24 18 W.	9th	Noon, 13th	15th	29.27	WNW	NNW., 10	N	NW., 10	WNW-N.
Pennsylvania, Am. S. S.	Port Arthur	Bayonne	32 10 N.	78 30 W.	10th	4 p., 10th	11th	29.80	E	SE., 9	SSE	—, 9	E-SE.
West Modus, Am. S. S.	Galveston	Liverpool	27 46 N.	79 46 W.	11th	5 p., 11th	13th	29.77	W	W., 7	NNW	—, 8	SW-WNW.
Parthenia, Br. S. S.	Glasgow	St. John, N. B.	50 11 N.	32 08 W.	18th	4 a., 19th	20th	29.72	S	S., 9	NNW	—, 10	S-WNW.
Stockholm, Swed. S. S.	New York	Gothenburg	55 46 N.	24 22 W.	21st	Noon, 23d	23d	28.21	W	N	N	WNW., 11	W-NW-W.
Nevisian, Br. S. S.	do	Hamburg	49 10 N.	12 00 W.	22d	4 a., 24th	25th	28.97	W	WSW	W	W., 11	W-S-WSW-W.
Lucellum, Br. S. S.	Norfolk	Ghent	47 21 N.	25 55 W.	22d	10 a., 25th	27th	29.64	SSE	W., 9	NNW	NW., 11	SSE-SW-N.
Westphalia, Germ. S. S.	Cobh	New York	50 05 N.	18 09 W.	25th	—, 25th	27th	28.90	SW	W., 11	NW	W., 12	—
Mercier, Belg. S. S.	New York	Antwerp	48 45 N.	16 22 W.	25th	9 a., 26th	26th	28.79	WSW	W., 10	NW	W., 11	WSW-NW.
Silvercedar, Br. S. S.	Gibraltar	New York	40 04 N.	64 30 W.	26th	2 p., 26th	28th	29.16	W	SW., 5	WNW	W., 10	SW-W-WNW.
Scythian, Br. S. S.	London	Boston	42 32 N.	67 03 W.	26th	3 p., 27th	28th	29.39	W	NW., 10	WNW	NW., 10	W-NW-WNW.
North Pacific Ocean:													
West Jena, Am. S. S.	Yokohama	Portland	47 N.	167 45 E.	Jan. 31	6 a., 2d	Feb. 2	28.89	—	NE	NE	NE., 10	ESE-E-NE.
Can. Skirmisher, Br. S. S.	Victoria	Panama	14 30 N.	95 15 W.	Feb. 3	11 a.	3d	29.82	N	N., 9	NW	N., 9	N-NW.
Can. Winner, Br. S. S.	do	do	42 46 N.	124 45 W.	4th	9 a., 5th	6th	29.21	SSW	SW., 9	SW	SSW., 10	S-SSW-WSW.
West Jena, Am. S. S.	Yokohama	Portland	50 N.	161 30 W.	7th	6 p., 7th	8th	29.58	N	N	NW	NW., 10	N-NW.
West Jessup, Am. S. S.	Portland	Yokohama	49 40 N.	134 55 W.	7th	6 p., 7th	8th	28.87	SE	SSW., 5	WNW	NW., 11	SE-SSW-WNW
Hakata Maru, Jap. S. S.	Yokohama	Seattle	45 08 N.	162 18 E.	7th	3 p., 8th	9th	28.78	S	SSW., 11	WSW	SSW., 11	S-SW-WSW.
Emp. of Canada, Br. S. S.	do	Vancouver	50 26 N.	139 32 W.	7th	8 p., 7th	9th	29.11	NNW	NW., 10	WNW	NW., 12	NW-W-NW.
Hanna Nielsen, Nor. S. S.	Balboa	Brit. Columbia	41 18 N.	125 51 W.	9th	6 a., 10th	10th	29.47	ESE	SE., 10	S	SE., 11	ESE-SE.
Makaweli, Am. S. S.	Hawaii	San Francisco	28 38 N.	144 52 W.	9th	Mid., 9th	10th	30.00	NW	NW., 7	NW	NW., 8	—
India Arrow, Br. S. S.	Shanghai	do	37 31 N.	132 50 W.	9th	1 p., 11th	11th	29.32	NW	WNW., 7	NW	NW., 9	Steady.
West Prospect, Am. S. S.	Hongkong	do	32 10 N.	135 15 E.	9th	2 a., 10th	11th	29.80	SE	NW., 7	NW	NNW., 9	SW-W-NW.
Pres. Lincoln, Am. S. S.	San Francisco	Manila	34 50 N.	144 30 E.	10th	9 a.	10th	29.53	SSW	SSW., 7	WNW	SW., 8	SSW-SW-W.
Steel Ranger, Am. S. S.	San Pedro	Japan	39 12 N.	152 05 E.	10th	7 p., 10th	11th	29.39	S	S., 7	NW	S., 10	SSW-S-SW.
K. I. Luckenbach, Am. S. S.	do	New York	14 31 N.	98 38 W.	11th	2 p., 12th	12th	29.98	NE	—, 10	NW	NE., 10	Steady.
Africa Maru, Jap. S. S.	Yokohama	Victoria	41 35 N.	154 53 E.	11th	Noon, 11th	13th	29.77	NW	NNW., 7	WNW	WNW., 9	Steady.
West Jessup, Am. S. S.	Portland	Yokohama	50 30 N.	174 45 E.	13th	8 p., 17th	19th	28.39	SE	NNE., 7	N	NE., 11	NE-NNE-N.
Crosskeys, Am. S. S.	Japan	Seattle	48 46 N.	178 42 E.	16th	Noon	16th	28.10	E	NNE., 8	SE	NNE., 10	—
Pres. Jackson, Am. S. S.	Yokohama	Victoria	49 14 N.	178 36 W.	16th	2 a., 16th	17th	28.03	ENE	E., 9	SE	NE., 10	E-SE.
Africa Maru, Jap. S. S.	do	do	48 55 N.	179 46 W.	16th	Noon, 16th	17th	28.12	NNW	E., 5	SE	S., 10	N-E-S.
West Prospect, Am. S. S.	Hongkong	San Francisco	37 44 N.	172 48 E.	16th	10 a., 17th	18th	29.26	W	W., 9	W	W., 9	Steady.
Tusitala, Am. S. S.	Honolulu	Seattle	38 44 N.	145 05 W.	18th	6 a., 19th	19th	29.50	SSE	W., 10	WSW	W., 10	WSW-W.
Pomona, Am. S. S.	Baltimore	do	40 45 N.	124 45 W.	22d	6 a.	22d	29.61	SE	SE., 5	S	SE., 10	SE-S.
West O'Rowa, Am. S. S.	Orient	San Francisco	47 29 N.	178 45 E.	21st	3 p., 21st	23d	28.31	W	—	WSW	SW., 11	SW-WSW.
West Sequana, Am. S. S.	Hongkong	do	38 51 N.	176 34 W.	23d	Noon, 23d	24th	29.20	SE	SW., 10	WSW	SW., 10	SW-W.
Las Vegas, Am. S. S.	Borneo	do	39 40 N.	160 50 W.	24th	3 p.	24th	29.09	S	S., 12	W	S., 12	S-SW.
West O'Rowa, Am. S. S.	Orient	do	47 57 N.	162 34 W.	24th	4 p., 24th	26th	28.27	ENE	—	SW	(SW., 11)	SE-SSE.
Dilworth, Am. S. S.	Cebu, P. I.	Portland	46 48 N.	161 50 W.	24th	1 a., 25th	26th	28.45	ESE	SW., 11	SW	(SW., 11)	SE-SW.
Tacoma, Br. S. S.	Hongkong	San Francisco	38 N.	169 E.	26th	8 a., 26th	27th	29.77	W	W., 10	W	W., 11	—
Boren, Swed. S. S.	Manila	do	42 20 N.	169 17 W.	28th	1 p.	28th	29.14	S	S., 10	SW	S., 10	S-SSW-SW.
Dellwood, Am. S. S.	Seattle	Alaska	52 58 N.	133 12 W.	28th	10 p.	28th	29.76	SSE	SSE., 8	SSE	SSE., 8	SSE-S-SSW.
Tacoma, Br. S. S.	Hongkong	San Francisco	39 N.	179 E.	28th	8 p., 28th	Mar. 1	29.85	S	S., 11	S	S., 11	—

## NORTH PACIFIC OCEAN

By WILLIS EDWIN HURD

Very little fog was reported from the western half of the North Pacific Ocean during February, 1925, except for scattered observances west of Midway Island and along the coasts of China and Japan. Fog occurred on several days near the 50th parallel east of 170° west longitude. It was frequent along the American coast from San Francisco to nearly as far south as the 20th parallel, and was exceptionally frequent on the California routes to Hawaii between the coast and the 140th meridian. Fog was reported on five days south of the Gulf of Tehuantepec. As on several recent occasions, its

appearance here excited comment among seamen. Some of these expressions, being deemed of especial interest, are quoted.

The American steamship *Lena Luckenbach*, San Pedro to Galveston, entered fog on February 20 in 14° 50' N., 94° 50' W., and cleared it in 14° 06' N., 94° W. Said the observer, Mr. R. F. Kelly, second officer:

Mariners who have sailed these seas for many years have never experienced fog in this part of the globe before.

The American steamship *Swiftwind*, California to Canal Zone, entered fog on the 15th in 14° 36' N., 95° 39' W., and cleared it on the 16th in 13° 38' N., 93° 48' W. This is the report of the ship's first and second officers, Messrs. S. Knudsen and A. C. Allen:

February 15. 12 noon. Observed heavy black fog on horizon extending from NE. to S. At 1:50 p. m. entered same bank, and at 3:25 ran out of it; water at that time same temperature; air dropping 10°. At that time observed fog bank on horizon extending from west through north to south. This bank was yellowish in color at base changing into black at the top. As we approached same it could be seen to be very dense and seemed to be boiling. We ran into water of 62° at that time, air 76°, and held same until February 16, 2 a. m., the bank cut off with a clear edge into fine and clear weather, water 78°, air 74°.

The American steamship *Corinto*, southward bound, Mr. G. H. Sterne, observer, reported the following:

February 16. When passing Port Angeles Lt., Mex., in 15° 30' N., 96° 30' W., there was a thick fog came on. It lasted for 8 hours until we arrived at Salina Cruz. The temperature of air and sea water dropped from 78° to 68° within 30 minutes, and continued throughout the a. m. of date till 11 a. m., when it came back normal, 80°. Engineer had same result with sea water taken 16 feet under the surface. Pilot at Salina Cruz claimed it was the first time they had had fog in 20 years.

More very rough weather occurred over the ocean in February than in any previous month of the cold season, and storm to hurricane winds were reported on seven days. Along the northern routes there were frequent and heavy squalls, as well as longer continued falls, of rain, snow, and hail. The weather was exceptionally stormy and variable over the eastern two-thirds of the routes between the American mainland and Hawaii, and gales of force 8 to 10, and in one instance 11, were reported from this region on 12 days. The American steamship *Mahukona*, made this report concerning the unsettled conditions prevailing from the 13th to 23d:

Weather during most of the voyage has been unfavorable, and the wind continually "boxed the compass." Highest velocity of the wind was fresh breeze.

Honolulu reported exceptionally quiet conditions with a mean wind velocity of 6.6 miles an hour, and an extreme 5-minute velocity of 22 miles from the east, on the 5th, this being the record low maximum wind for the station in February. Honolulu experienced unusually warm weather and scant precipitation. The highest temperature was 82, or next to the high record for February, and the lowest was 65, or the highest minimum of record for the month. The precipitation was very light, being 0.36 inch, or 3.39 inches below the normal.

Some gales occurred in Japanese waters, but no high winds have been reported from the region to the southward. Anticyclonic conditions prevailed along the China coast. The weather was generally quiet in the American Tropics, but vessels encountered strong to whole gales on the 3d, 11th, and 12th to the southward of the Gulf of Tehuantepec.

The pressure movements were active north of the 30th parallel. The Aleutian cyclone, with one or more centers, persisted throughout the month. Its principal center lay in the vicinity of Dutch Harbor, but a secondary center frequently covered the lower part of the Gulf of Alaska, sending offshoot Lows into the mainland on at least eight different occasions.

On February 8 a depression of considerable magnitude separated from the main area in the gulf, becoming cen-

tral near 40° N., 145° W., and moved slowly eastward, attended by rough weather to the California coast, which it entered on the 12th. On the 16th to 18th a weak depression lay near 30° N., 135° W., then disappeared. From the 19th to the 23d the gulf low extended far southward and caused gales along the northern part of the Hawaiian routes.

In the southeastern Gulf of Alaska the weather was most violent on the 7th and 8th; off the coast of Oregon on the 10th; and over the region bounded by the 35th and 50th parallels, 150th and 165th meridians, west, on the 8th and 24th to 26th. On the 22d, 26th, and 28th winds of force 11 and 12 occurred in east longitudes between the 165th and 180th meridians, 35th and 48th parallels.

The lowest pressure reading of the month occurred near 49° N. and the 180th meridian on the 16th. (See table.) The minimum, 28.03 inches, was read on board the American steamship *President Jackson*, in 49° 14' N., 178° 36' W.

The eastern Pacific anticyclone disintegrated considerably from the high state of development it reached in January and held its normal position off the American coast on few days of the month.

Pressure was below normal at apparently all ocean and island points north of and immediately west of Hawaii.

Considering the barometric conditions for February at the island stations of Dutch Harbor, Midway Island, and Honolulu, we find the following: The average 8 p. m. pressure at Dutch Harbor was 29.37 inches, or 0.25 inch below the normal. The extremes were 30.10, on the 8th—the only day in which the barometer read as high as 30 inches—and 28.64, on the 25th. The pressure was above normal on only 10 days, embraced between the 5th and the 20th. Midway Island had an average p. m. pressure of 29.96, or 0.07 below the normal. The extremes were 30.36, on the 7th, and 29.60, on the 16th. Readings above normal occurred on 10 days, and these mostly in the first decade. At Honolulu the average (8 a. m.—8 p. m.) pressure was 30.04, or exactly normal. The highest reading was 30.15, on the 5th; the lowest, 29.86, on the 12th.

#### NOTES

American schooner *Irene*, Capt. A. E. Rosendal, Grays Harbor, Wash., toward Honolulu:

From January 25, 1925 to February 10. One continuous gale from ESE. to WSW. Heavy rain most of the time, wind blowing hardest from ESE. to SSW. Lowest barometer 29.42, on February 8 at noon. Positions, January 25, 44° 34' N., 125° 34' W.; February 10, 37° 30' N., 128° 40' W.

Swedish steamship *Boren*, Capt. A. Hellman, observer A. T. Eckman, chief officer, Manila toward San Francisco:

Several times at night during heavy hail squalls have the wireless antennæ been illuminated by light of about the same color as water phosphorescence, in some cases only the port wire, but in very heavy hail squalls both wires. The light has sometimes been of fixed strength and sometimes of flaming character. [St. Elmo's Fire.—W. E. H.]